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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/811,050

03/29/2004

Stephen Meek

ONS00556

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11/23/2005

Mr. Jerry Chroma

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EXAMINER

ZWEIZIG, JEFFERY SHAWN

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,050

Applicant(s)

MEEK ET AL.

Examiner

Jeffrey S. Zweizig

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8 and 10-23 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8,10,11,14,15 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 12,13 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1, 3-6, 8, 10-15 and 20-23 drawn to a high-side floating charge pump output circuit, classified in class 327, subclass 536.
 - II. Claims 16-19, drawn to a charge pump controller, classified in class 327, subclass 536.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, the charge pump output circuit is usefully by itself as a charge pump output circuit and could be operated by charge pump controllers other than the claimed charge pump controller. Likewise, the controller is usefully by itself as a charge pump controller and could operate charge pump output circuits other than the claimed charge pump output circuit. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant has elected, with traverse, to prosecute the invention of Group I, claims 1, 3-6, 8, 10-15 and 20-23. Claims 16-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

2. Claims 16-19 are objected to as having been withdrawn from consideration. Should Applicants choose not to pursue claims 16-19 in this application, claims 16-19 must be explicitly cancelled before the application can be allowed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-6, 8, 10, 11, 14, 15 and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Appeltans (USPN 6,717,829).

Little weight is given to limitations like "floating" and "referencing". A circuit's "reference" point is often ground, however, this is completely arbitrary and does not affect the function of the circuit. The terms "floating" and "referencing" are seen as points of view more than limitations.

Fig. 2 discloses a floating charge pump circuit comprising a first supply voltage V_{in} , an output capacitor 2 referenced to the first supply voltage, a second supply voltage (voltage output from 9 which is the first supply voltage modified by 9 and therefore different from the first supply voltage) and a charge pump controller (switches) configured and operating as recited in claims 8, 14 and 23. Note that the second supply voltage is "external" from the switches or charge pump controller which generates an operating supplied pump voltage to capacitor 1.

The output capacitor 2 has one terminal referenced to the first supply voltage and another terminal for receiving the pump voltage from the charge pump controller as recited in claim 10.

Further shown is a charge pump capacitor 1 as recited in claim 11.

Little weight is given to the word "protection" as its meaning is arbitrary. When the charge pump exceeds a protection value charging is stopped by component 9 as recited in claim 15.

The disclosed components noted above perform the methods recited in claims 1, 3-6 and 20-22. Note that component 9 functions as a regulator providing the second voltage supply that is different and independent of the first voltage supply.

Allowable Subject Matter

5. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendments and Arguments

6. The independence of the two inventions is clear from the distinctiveness set forth in the previous Office Action. If the two inventions are distinct and separately useable, they are independent. The restriction requirement is proper.

As per the amendments to the claims, all previous rejections are withdrawn in favor of the new rejections above. Applicant's arguments are moot in view of the new rejections.

Conclusion


7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571) 272-1758. The examiner can normally be reached on Monday thru Wednesday 6:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey S. Zweizig
Primary Examiner
Art Unit 2816

JZ



**TITLE: METHOD OF FORMING A FLOATING CHARGE PUMP
AND STRUCTURE THEREFOR**
INVENTOR: Stephen Meek et al
DOCKET NO.: ONS00556

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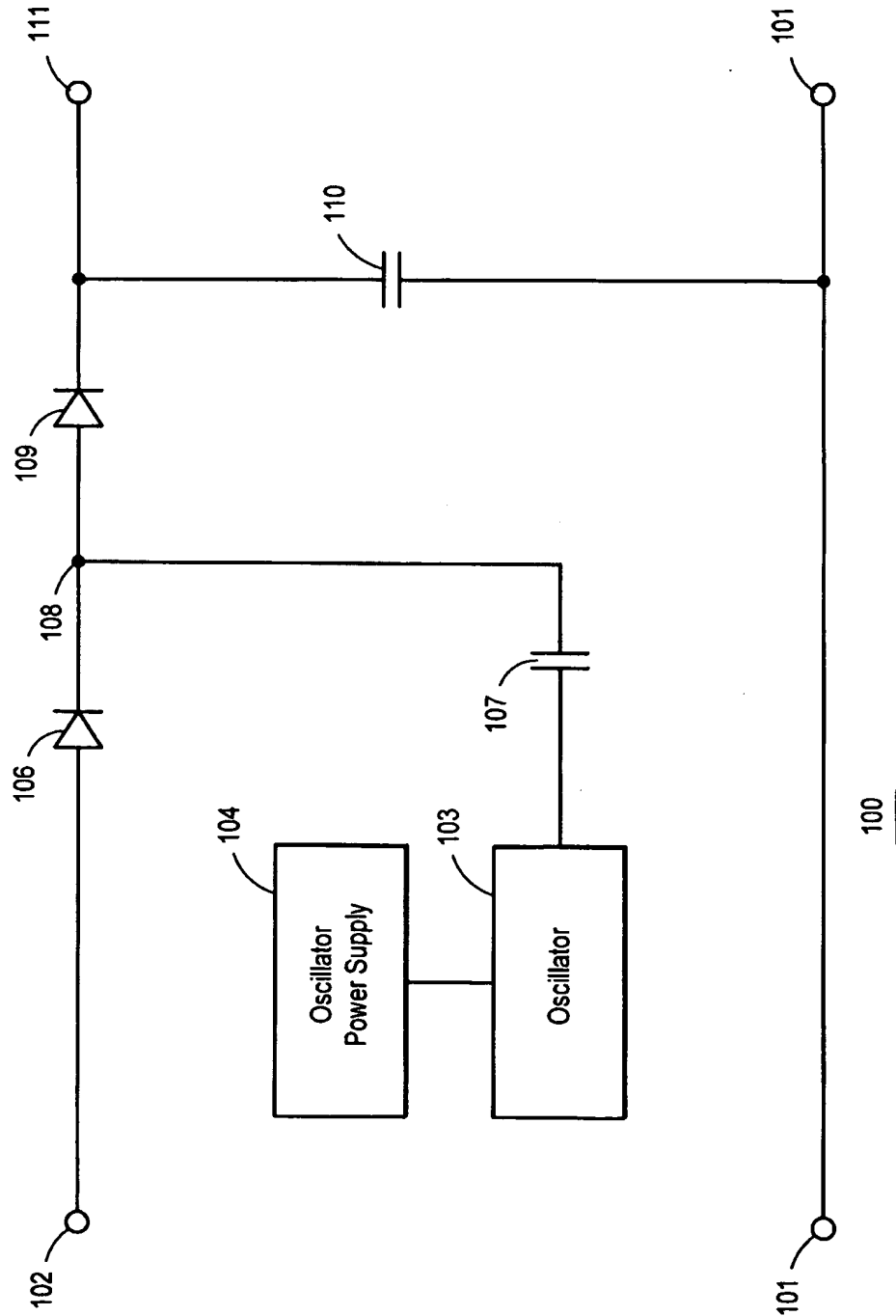
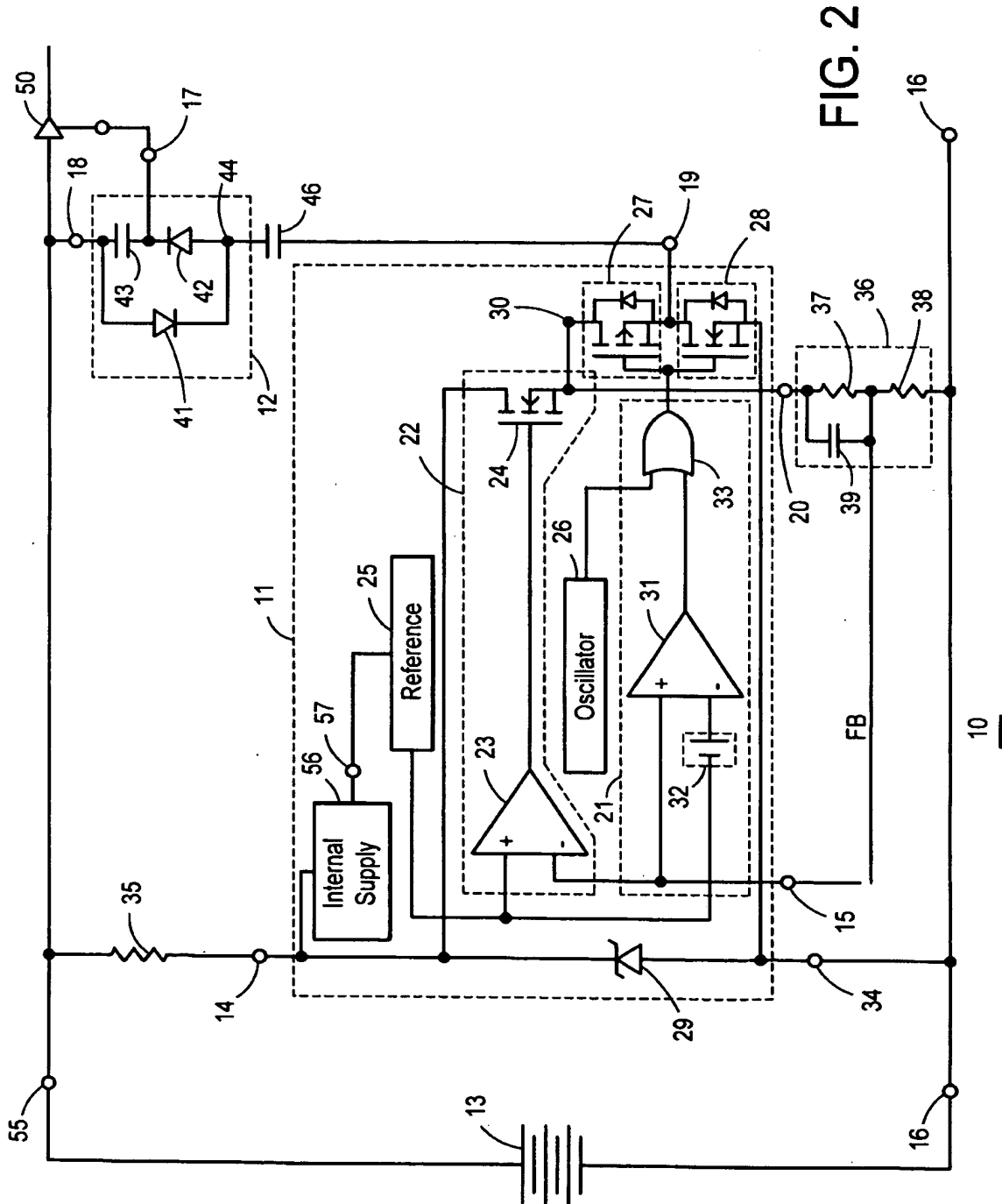


FIG. 1 Prior Art

Okay
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11/24/05

TITLE: METHOD OF FORMING A FLOATING CHARGE PUMP
AND STRUCTURE THEREFOR
INVENTOR: Stephen Meek et al
DOCKET NO.: ONS00556
Replacement Sheet

2/3



Okay
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11/24/05

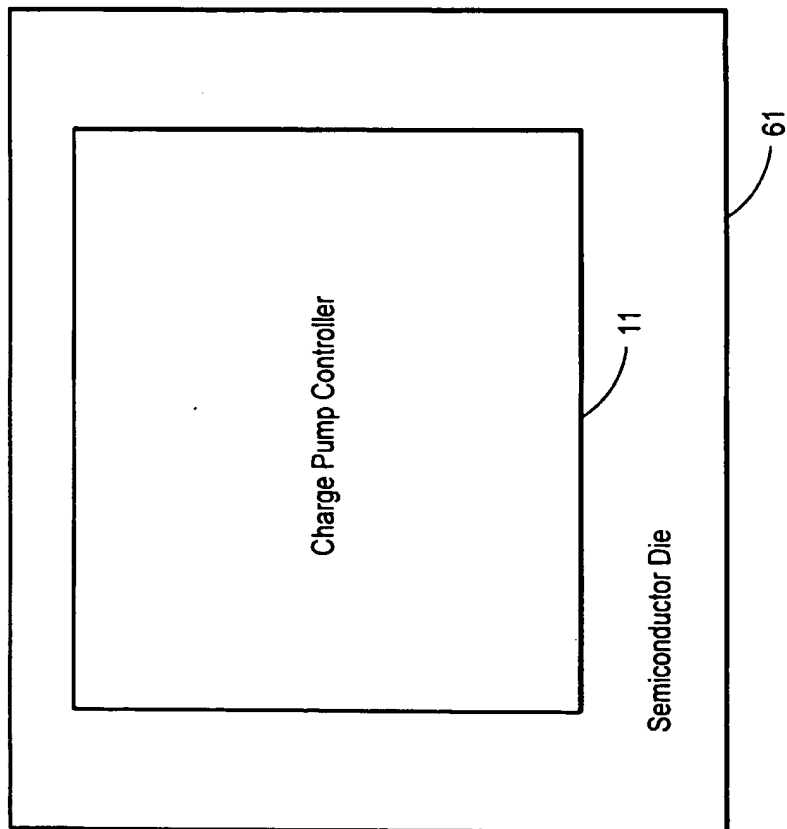


FIG. 3

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